

**EXAMINATION OF CERTAIN POLICIES, PROCEDURES,  
AND FINANCIAL ACTIVITY OF THE  
KENTUCKY FIRE COMMISSION  
AND THE KENTUCKY FIREFIGHTERS FOUNDATION  
PROGRAM FUND**



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May 3, 2018

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The Auditor of Public Accounts (APA) has completed its examination of the Kentucky Commission on Fire Protection Personnel Standards and Education (Fire Commission) and the Kentucky Firefighters Foundation Program Fund (KFFPF). This letter summarizes the procedures performed and communicates the results of those procedures.

Examination procedures included interviewing staff concerning the Fire Commission's operating environment and activities; reviewing financial transactions associated with the Fire Commission for the time period of July 1, 2014 through March 23, 2017, except when otherwise noted; and reviewing additional financial activity of the Fire Commission.

The purpose of this examination was not to provide an opinion on the financial statements, but to ensure appropriate processes are in place to provide strong fiscal management and oversight of the financial activity of the Fire Commission and to review specific issues brought to the attention of this office. However, we did provide a partial schedule of the KFFPF financial activity for analysis.

Detailed findings and recommendations based on our examination are presented in this report to assist all parties involved in implementing corrective action. Overall, these findings identify a lack of oversight and transparency, resulting in poor policies and procedures and unnecessary expenditures.

If you have any questions or wish to discuss this report further, contact me or Chris Hunt, Executive Director.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike H.", written over a horizontal line.

Mike Harmon  
Auditor of Public Accounts





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## TABLE OF CONTENTS

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	<u>Page</u>
BACKGROUND .....	1
FINDINGS AND RECOMMENDATIONS .....	3
APPENDICES	
APPENDIX A - RECEIPTS AND SWEEPS TO THE GENERAL FUND BY FISCAL YEAR - KENTUCKY FIREFIGHTERS FOUNDATION PROGRAM FUND (KFFPF) AND THE KENTUCKY LAW ENFORCEMENT FOUNDATION PROGRAM FUND (KLEFPF).....	17
APPENDIX B - SCHEDULE OF RECEIPTS AND CERTAIN EXPENDITURES - KENTUCKY FIRE COMMISSION .....	88
KENTUCKY FIRE COMMISSION’S MANAGEMENT RESPONSE .....	21
AUDITOR’S REPLY .....	35



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## Background

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### *Impetus and Objectives of the Examination*

After releasing a special examination of the Department of Criminal Justice Training (DOCJT) and the Kentucky Law Enforcement Foundation Program Fund (KLEFPF) on September 29, 2016, the Auditor of Public Accounts (APA) received requests from members of the General Assembly to perform a special examination of the Kentucky Commission on Fire Protection Personnel Standards and Education (Fire Commission) and the Kentucky Firefighters Foundation Program Fund (KFFPF). Following receipt of these requests, the APA initiated an examination of the Fire Commission and the KFFPF on March 3, 2017.

### *Scope and Methodology*

The purpose of the APA examination was to determine if the Fire Commission has administered KFFPF funds in a manner consistent with the General Assembly's intent established by KRS 95A.200. The objective of the examination was not to provide an audit opinion on the financial statements of the Fire Commission. The APA reviewed Fire Commission transactions for the time period of July 1, 2014 through March 23, 2017, unless otherwise indicated.

### *Fire Commission Structure and Mission*

The Fire Commission was created by the General Assembly in 1972 through KRS 95A.020 and is attached to the Kentucky Community and Technical College System (KCTCS). The Fire Commission is composed of 17 board members appointed by the Governor and two ex-officio members, the state fire marshal, and chancellor for the Technical Institutions' Branch of KCTCS, or their designees.

KRS 95A.040 establishes the powers of the Fire Commission, which include but are not limited to: establishing through administrative regulation a physical agility test to be administered to all professional firefighter candidates, certifying fire protection training and education programs as having met minimum required standards, certifying instructors as having qualified as fire protection instructors, directing research in the field of fire protection, and recommending curricula for advanced courses and seminars in fire science. In addition to these programs, and others, KRS 95A.262, establishes a low-interest loan program for volunteer fire departments.

The programs and operations of the Fire Commission are primarily funded through KFFPF and administered by an executive director and staff. KRS 95A.240 establishes the Fire Commission as administrator of the KFFPF; however, the amount of KFFPF appropriated for use by the Fire Commission is set by the Kentucky General Assembly through the executive budget process as directed by KRS 95A.220. Furthermore, KRS 95A.220 states, "[m]oneys in the fund are hereby appropriated by the General Assembly for the purposes provided in KRS 95A.200 to 95A.300. In 2010, the Kentucky Fire Commission

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## Background

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was administratively attached to KCTCS. KCTCS provides fiscal and administrative support requested by the Fire Commission as prescribed by KRS 95A.060.”

### *Kentucky Firefighters Foundation Program Fund*

The KFFPF was established in 1980 by the General Assembly with the stated intent to “assure that fire protection in the Commonwealth is continually strengthened, upgraded and attractive to highly qualified men and women who choose firefighting as a profession; and to retain qualified and experienced firefighters for the purpose of providing maximum protection and safety to the citizens of, and visitors to, this Commonwealth; and to offer a state monetary supplement for local firefighters while upgrading the education and training standards of such firefighters.”

KFFPF is funded by a surcharge tax placed on property and casualty insurance premiums paid by Kentucky citizens. This surcharge rate was increased from 1.5% to 1.85% in 2010. All funds collected by in-state insurers are reserved for KFFPF. Of the funds collected by insurers based outside of the Commonwealth, 28% is reserved for KFFPF, and 72% is reserved for the KLEFPF.

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## Findings and Recommendations

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### **Finding 1: The Surcharge Tax Rate On Insurance Premiums That Funds The Kentucky Fire Commission Was Not Set In Accordance With State Law**

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The Kentucky Firefighters Foundation Program Fund (KFFPF) is funded by revenue collected from an insurance surcharge tax established by KRS 136.392. The surcharge tax is the primary funding source for the Kentucky Fire Commission. KFFPF funds are generated through a 1.8% surcharge placed on property and casualty insurance premiums paid by Kentucky citizens. All funds collected by in-state insurers are reserved for KFFPF. Of the funds collected by insurers based outside of the state, 72% is reserved for the Kentucky Law Enforcement Foundation Program Fund (KLEFPF), and the remaining 28% is reserved for KFFPF.

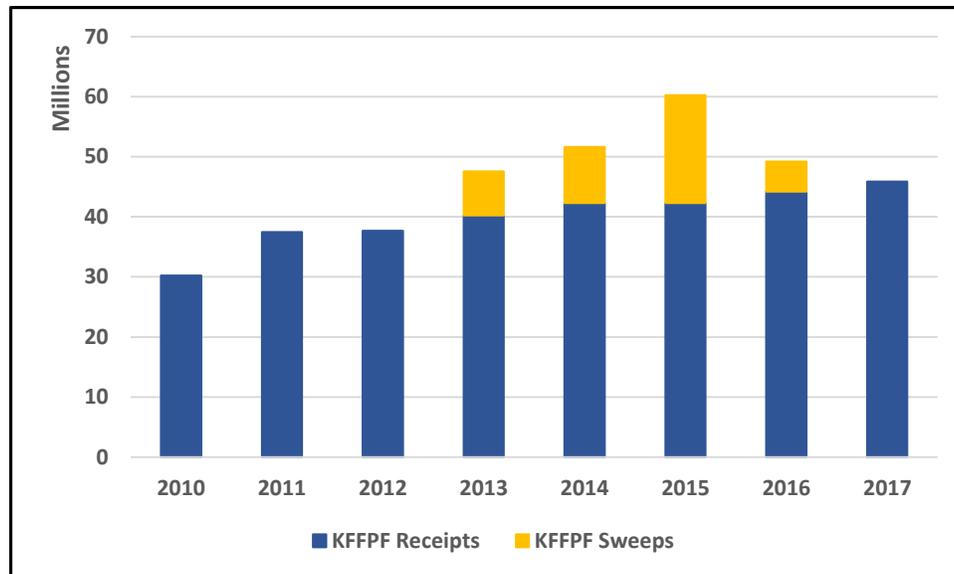
According to KRS 136.392, the surcharge rate "shall be adjusted by the commissioner of revenue to a rate calculated to provide sufficient funds for the uses and purposes of the Firefighters Foundation Program fund as prescribed by KRS 95A.220 and 95A.262 and the Law Enforcement Foundation Program fund as prescribed by KRS 15.430 for each fiscal year." To assist the commissioner of revenue in setting the rate, "the secretary of the Public Protection Cabinet and the secretary for the Justice and Public Safety Cabinet shall certify to the commissioner of revenue each year the estimated budgets for the respective funds specified above, including any surplus moneys in the funds, which shall be incorporated into the consideration of the adjusted rate."

As noted in Finding 1 of the APA's examination of the Department of Criminal Justice Training (DOCJT) released in September 2016, there is no evidence that the cabinets provided any information to the Department of Revenue (DOR) Commissioner to support the surcharge tax rate. Furthermore, there was no evidence that the rate was historically analyzed to determine the adequacy of the rate for the statutory purposes. Rather, the rate has been directed by the state's budget office, and surpluses generated through the tax have been routinely applied to the state's general fund.

Because KFFPF funds are generated through a surcharge tax on property and casualty insurance premiums, KFFPF should only be used for the restricted purposes specified in statute. If the surcharge rate is sufficient to meet KFFPF objectives and a substantial surplus consistently remains at the end of the fiscal year, consideration should be given to whether the surcharge rate could be reduced. Since 2003, over \$56 million has been transferred from Fire Commission funds to the state's general fund. Chart 1 indicates the amounts transferred in recent years. (See Appendix A of this report for additional detail regarding fund sweeps for KFFPF and KLEFPF).

## Findings and Recommendations

**Chart 1 – KFFPF Surcharge Tax Receipts and General Fund Sweeps by Fiscal Year**



Source: Kentucky Fire Commission Data

While language in budget legislation may legally authorize these transfers, consistent and large transfers suggest that the surcharge tax rate is not being set based on the actual statutory needs for which this tax was established. Furthermore, use of this revenue for general fund purposes increases the burden of this specific tax, which was originally intended to be program-specific. For additional information, please see Finding 1 of the APA’s report regarding DOCJT released September 2016, which relates to the same insurance surcharge discussed here.

### *Recommendations*

We recommend the Fire Commission work with DOR to refine the analysis of the adequacy of the surcharge tax rate. The analysis used to justify surcharge tax rate changes should be documented and maintained. The General Assembly should evaluate whether a statutory change or clarification of the rate-setting process is needed.

### **Finding 2: The Fire Commission Failed To Ensure Its Interest in Collateral For Low-Interest Loans Was Perfected**

Reviewing of a sample of 40 low-interest loans active during the examination period identified 15 instances when the Fire Commission loaned funds to a volunteer fire department for the purpose of purchasing an apparatus, building, or equipment without obtaining evidence that the lien granted to the Fire Commission had been perfected. Perfection is a step necessary to protect collateral from claims by other creditors. The Fire Commission obtains a “Promissory Note and Loan Agreement” and a “Security Agreement” for these loans. The Security Agreement states that the “[d]ebtor will file UCC-1 form in the County Court Clerk’s Office immediately

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## Findings and Recommendations

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upon release of funds or before disbursement and forward a copy to the Secured Party.” The Promissory Note and Loan Agreement states that the borrower has filed a mortgage or security agreement in the county clerk’s office or Secretary of State’s office, and will provide the Fire Commission a copy within thirty days.

739 KAR 2:070 Section 4(2), requires that “[a]ny apparatus equipment or facilities financed by a loan from the fund shall be titled in the name of the volunteer fire department or in the name of the political subdivision with the commission as lien holder for the property.” The Commission notified loan recipients of this requirement when initially awarding the loans to the departments; however, submission deadlines were not established and the Fire Commission took no action to follow up with the departments to ensure proper filings were made and evidence of those filings was secured in Fire Commission files until auditors identified the issue and made inquiry to Fire Commission staff.

The total of these 15 loans was \$1,047,446.66, with an average loan of approximately \$70,000. Of the 15 instances identified, only one loan was made after 2013. The Fire Commission Division Director responsible for oversight of the low-interest loan program acknowledged that the Fire Commission had not previously had a process in place to ensure receipt of UCC financing statements for loan recipients and noted that a new process was developed to track the filings. The Division Director stated that the Fire Commission would probably withhold state aid from departments that did not respond to collection efforts, noting that for many of these departments the state aid is used to meet their annual loan obligations to the Fire Commission. Without the state aid, many of the departments would have to make loan payments from department funds.

After sharing the results of testing with Fire Commission staff, the Fire Commission identified an additional 34 volunteer fire departments that had not properly filed a financing statement and submitted letters to all 49 departments requesting the documentation be submitted. As of December 7, 2017, Fire Commission staff reported they are still awaiting the requested information from six departments. Furthermore, staff reported nine departments had provided documentation of UCC filings but noted that those documents had not yet been filed. In four of the 49 instances, the Division Director permitted departments to forego submission of a UCC financing statement because the loan was to be paid off in 2017, and in two instances a financing statement had expired. The Fire Commission’s Executive Director and Division Director both indicated that if a lien or UCC filing was not properly made by a loan

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## Findings and Recommendations

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recipient, the Fire Commission may withhold the volunteer state aid to that department. While this action may have been considered by Fire Commission personnel, auditors are unaware of an actual penalty incurred or enforced for failing to file these records.

KRS 355.9-509(2)(a) authorizes a secured party, such as the Fire Commission, to file a financing statement covering the collateral granted to it. Therefore, it is not clear, other than longstanding practice, why the Fire Commission continues to rely on the borrowers, the fire departments, to perform this task, which benefits the Fire Commission by perfecting its collateral. The Fire Commission, as lender, is the party with the incentive to perfect its security interest by filing a financing statement. Furthermore, financing statements for most types of collateral should be filed centrally with the Kentucky Secretary of State rather than the local county clerk, which is the place of filing directed by the loan documents.

### *Recommendations*

We recommend the Fire Commission:

- Consult with its legal counsel regarding the option of filing UCC-1 statements itself rather than waiting on the borrower to perform this task.
- Also consult with its legal counsel to review its loan documents and administrative regulations to ensure its procedures for perfecting liens are consistent with current law. The Fire Commission should also review existing files to ensure liens are properly perfected by filing documentation with the correct office, depending on the type of collateral.
- Periodically review active loan files to ensure that financing statements or other perfection documents have been filed.

**Finding 3: The Fire Commission Approved The Award Of Low-Interest Loans In Excess Of Dollar And Term Limits Established By 739 KAR 2:070**

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Testing a sample of Fire Commission low-interest loans active during the period under examination identified 15 loans awarded by the Fire Commission in excess of the maximum dollar and term limits allowed by administrative regulation. 739 KAR 2:010 caps loan amounts at \$75,000 with a 12-year term. The Fire Commission attempted to extend the limits on loans internally, without taking formal action to change the law. Eleven of the loans in excess of the cap were awarded between calendar years 2004 and 2006 in amounts between \$83,366 and \$100,000 with 14 to 16 year terms. The remaining loans identified in testing as exceeding restrictions were all awarded in the last six years and only exceeded the dollar threshold limitation due to errors in staff calculations. These calculation errors resulted in loans exceeding the maximum dollar threshold allowed by between \$750 and \$4,687.50.

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## Findings and Recommendations

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KRS 95A.262 authorizes the Fire Commission to use certain funds from KFFPF to make low-interest loans to qualifying volunteer fire departments who do not otherwise have a source of low-interest funds available to them. The loans awarded must be used “for the purpose of major equipment purchases and facility construction.” 739 KAR 2:070 establishes the criteria for qualifying for a low-interest loan and the mandatory procedures to be followed in obtaining and repaying the loan. This administrative regulation specifies that low-interest loans to volunteer fire departments may be made for up to a period of 12 years and in the amount of \$75,000, or 75% of the total project cost, whichever is less. Despite the cap established, Commission meeting minutes document that the Commission, during its April 1, 2004 meeting, passed a motion to change Commission policy raising the loan limit to \$100,000 and extending the loan period from 12 years to “approximately 15 years.” However, no action was taken to formally adopt the changes in the administrative regulations.

According to the Legislative Director, who oversaw the loan program when the policy was changed, Commission staff were unaware that the administrative regulation would need to be revised before making a recommendation to the Commission Board for action. Both the Legislative Director and Executive Director recalled KCTCS attorneys indicating that the Commission could take action to increase the loan amounts and terms prior to a change in administrative regulations. However, the Commission provided no written confirmation of this advice to auditors. It was not until the Legislative Director had met with Legislative Research Commission personnel that he became aware of the appropriate process to follow to amend the regulation to allow loans to be awarded with these terms. Once the Legislative Director realized the Commission had not followed the appropriate process to initiate change in its loan process, the Legislative Director and other Commission personnel advised the Commission Board that they could not increase the loan limitations until 739 KAR 2:070 was amended. Though no formal action to rescind the Commission Board’s previous motion could be found in meeting minutes, the Legislative Director believed the Commission Board reverted back to its previous policy on August 6, 2006, when meeting minutes document discussion of administrative action. Testing performed on a sample of low-interest loans active during the period examined appear to agree with the Legislative Director’s timeline as the Commission did not award loans in excess of \$75,000 following August 2006, .

While Commission personnel indicated that volunteer departments are still interested in obtaining loans up to \$100,000, the Commission Finance Director noted that the action to extend loan terms created

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## Findings and Recommendations

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some difficulty for departments. The Commission loan program requires the life of a loan combined with the age of fire apparatus purchased to not exceed 25 years. The \$8,250 maximum in state aid made it difficult for departments to have such loans as many volunteer fire departments rely upon state aid to be applied as payment on their loans. State aid for volunteer departments has been set at a maximum of \$8,250 maximum until the 2016-2018 Budget of the Commonwealth, which increased the state-aid for that budget period to \$11,000. Because this increase in state-aid is provided through a state budget bill, there is no guarantee that this amount of additional funding will continue to be made available to volunteer departments in future periods. The Finance Director indicated that the Commission would need to consider how the increase in state aid could impact loan amounts if they were to again consider increasing the maximum loan amount.

Additionally, testing identified four loans awarded between calendar years 2010 and 2016 in excess of the dollar threshold established by 739 KAR 2:070. Unlike the loans awarded by the Commission between 2004 and 2006, the excess loan amounts appear to be the result of errors in the loan calculation. Furthermore, these four loans did not exceed \$75,000 but rather were awarded in an amount over the 75% threshold. The cause for the calculation errors is not known but appears to have resulted in loans exceeding the maximum dollar threshold allowed by between \$750 and \$4,687.50.

### *Recommendations*

We recommend the Fire Commission abide by the rules in the administrative regulations regarding the maximum loan amounts and terms. If the Commission determines that revisions to loan limitations or restrictions are needed, we recommend Commission staff first conduct an internal analysis of its loan program to determine the potential impact of policy changes prior to making any recommendation to the Commission Board. An internal analysis should include a review of all statutes, administrative regulations, and industry standards impacting the program.

### **Finding 4: Kentucky Fire Commission Spending To Host Annual Firefighter Combat Challenge Exceeded \$150,000 And Does Not Appear To Be A Reasonable Or Necessary Expense**

Between July 1, 2014 and March 23, 2017, costs for annual firefighter combat challenges hosted in-state by the Kentucky Fire Commission exceeded \$150,000. These expenses included annual combat challenge hosting fees of approximately \$26,000 for each event, as well as hotel and food costs for Commission personnel and guests. The Commission hosted this event four times during the period examined. Testing of a sample of expenditures made during the period examined revealed the Commission paid over \$400 in incidental expenses for the challenge, including expenses to provide food for employees and volunteers setting up the challenge course, trophies, bananas, ice, and water. Additionally, the Commission

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## Findings and Recommendations

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expended \$975 for registration fees for the first place and second place Kentucky departments to attend the World Combat Challenge in calendar year 2015, and \$775 for one team to attend the World Combat Challenge in calendar year 2016. These expenses from the KFFPF are not only unreasonable, given that less than 2% of Kentucky fire departments had a team participate in these challenge events, but the expenses also do not appear to comply with the intent of the statutes governing KFFPF. The Fire Commission did not provide auditors with participation numbers for the World Combat Challenge for calendar year 2017, despite multiple requests.

As identified in KRS 95A.200, the intent of the General Assembly in creation of KFFPF was to “assure that fire protection in the Commonwealth is continually strengthened, upgraded and attractive to highly qualified men and women who choose firefighting as a profession; and to retain qualified and experienced firefighters for the purpose of providing maximum protection and safety to the citizens of, and visitors to, this Commonwealth; and to offer a state monetary supplement for local firefighters while upgrading the educational and training standards of such firefighters.” Based on this intent, expenditures associated with the annual combat challenge and world combat challenge registration do not comply with statutes governing KFFPF.

Commission personnel consider the annual combat challenge as a motivational tool to promote health and wellness among state firefighters. While those participating in the combat challenge may also participate in health and wellness training programs in preparation for the challenge, training hours are not awarded for participation in the combat challenge itself. Furthermore, out of the approximate 800 volunteer and paid fire departments in Kentucky, less than 2% of departments had a team participate in the local challenge during the period examined. The Commission reported a total of 14 teams participating in the challenge in FY 2015 event, and nine teams participating in FY 2016 events. The number of Kentucky fire departments participating in the FY 2017 event was not provided by the Commission. During this same period of time, the Commission paid \$104,000 for the challenge hosting fees, \$21,136 for meals, and \$26,927 for hotel stays.

Challenge hosting fees paid by the Commission for each event were approximately \$26,000. KCTCS Business Procedures, section 4.14.2, states, “[u]nless an exemption is granted by KCTCS Procurement to Payment Services, formal quotations will be solicited by the Procurement Analyst or Manager from a minimum of three vendors when the estimated cost of a purchase transaction is not covered by a price contract, special purchase authority, or the cost is more than

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## Findings and Recommendations

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\$20,000 but less than \$40,000.” Review of support for host fee payments made in FY 2016 and FY 2017 found no evidence indicating additional quotes or an exception from KCTCS had been granted. In response to inquiry by auditors, KCTCS Director of Financial Services advised that KCTCS had approved and made exceptions for each purchase order and contract established with the challenge hosting company between August 2007 and August 2016. KCTCS provided evidence from its system documenting hosting fees were approved by KCTCS in FY 2015. However, similar evidence was not provided for charges made in June 2016 and August 2016, despite multiple requests by auditors.

In addition to hosting fees, meals, and lodging, the Commission paid \$975 in FY 2016 to a vendor for registration for two Kentucky teams to participate in the World Challenge hosted in Montgomery, Alabama in October 2015. According to a flyer distributed by the Commission on April 18, 2015, first place winners of the Kentucky Challenge would receive free entry for up to three runs to compete in the World Challenge, the second place team would receive free entry for up to two runs, and the third place team would receive free entry for up to one run. According to the Commission Director who oversees the Commission’s Health and Wellness Program, registrations were paid for the first and second place teams. In October 2016, the Commission paid an additional \$775 for registration fees to the World Challenge; however, in this instance the fees were paid for only one local department to participate, and the fee was not paid as an award for participation in the Kentucky challenge. The Commission Division Director stated that the local team had requested the Commission pay the team’s entry fee to the World challenge if they qualified. He stated that the local team had “put in numerous hours of fitness training” and attended several events around the country to qualify for the world challenge.

Expenditure testing revealed the Commission retained documentation to support individual transactions within our sample associated with the combat challenge; however, the Commission was not able to readily provide auditors with a total cost associated with each challenge. Furthermore, while Commission personnel indicated there were health benefits to participants and economic benefits to the cities hosting these challenges, it does not appear the Commission has completed a cost benefit analysis to track its total costs associated with the event each year.

### ***Recommendations***

We recommend the Fire Commission refrain from expending KFFPF funds for the purpose of the combat challenge.

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## Findings and Recommendations

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### **Finding 5: Over \$51,000 In KFFPF Funds Were Used For Commission Personnel, Local Honor Guards, And Firefighter Families To Attend The National Firefighter Memorial**

During the period examined, the Kentucky Fire Commission spent, on average, approximately \$17,000 a year on travel costs for Fire Commission personnel, local honor guards, and family members of fallen firefighters to attend the national fallen firefighter memorial weekend out-of-state. The expenses associated with this travel included bus transportation, hotel rooms, food while traveling, and engraved keepsakes for surviving family members. Families invited to attend the annual event include both families of newly fallen firefighters and families of fallen firefighters who had been honored in previous years, although lodging expenses for the later were not covered by the Commission. While the memorial weekend is a noble event, such travel costs are not consistent with the statutory restrictions for the use of KFFPF funds.

As noted in Finding 4, KRS 95A.200 identifies the intent of the General Assembly in creation of the KFFPF was to “assure that fire protection in the Commonwealth is continually strengthened, upgraded and attractive to highly qualified men and women who choose firefighting as a profession; and to retain qualified and experienced firefighters for the purpose of providing maximum protection and safety to the citizens of, and visitors to, this Commonwealth; and to offer a state monetary supplement for local firefighters while upgrading the educational and training standards of such firefighters.” While KRS 95A.240 allows the Fire Commission, as the administrator of KFFPF, to establish “rules and regulations, at its discretion, to facilitate the administration of the fund,” spending of funds from KFFPF should be consistent with statutory intent.

According to the Fire Commission Executive Director, the Commission attended and provided transportation for families to attend the national memorial prior to his arrival at the Commission in 1991. The Executive Director noted that a select number of Fire Commission personnel will escort families of fallen firefighters on the trip and that costs incurred during the trip include per diem for staff, charter bus transportation, snacks and soft drinks for the bus ride, and hotel rooms for Fire Commission staff and immediate family members of fallen firefighters attending the memorial. Once at the memorial, meal expenses for families are covered by the sponsor of the memorial weekend event. Testing of a sample of KFFPF expenditures for the period July 1, 2014 through March 23, 2017 revealed the Commission expended \$21,980 for chartered bus transportation, almost \$1,900 for snacks and drinks provided to passengers while traveling on the chartered bus, and \$26,927 for hotel rooms while staying overnight during the trip.

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## Findings and Recommendations

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Documentation examined during testing identified more than Fire Commission personnel and family members of newly fallen firefighters attended the memorial weekend trip. Email communication from the Commission to KCTCS requesting approval for the travel expenses associated with this trip identified that travelers in FY 2016 and FY 2017 included honor guards and returning family members. In FY 2016 attendees also included a KCTCS Marketing employee and in FY 2017 support documented “numerous firefighters from across the state” were attending. Though others accompanied the Commission on this trip, lodging costs in both years included rooms for a bus driver, Fire Commission representatives, two honor guards, and families of newly fallen firefighters. In FY 2016, the Commission also covered the lodging expenses for the KCTCS Marketing employee. Total lodging costs incurred were \$11,360.85 and \$9,885.66 for FY 2016 and FY 2017, respectively.

In addition to providing families transportation, lodging, and snacks, testing of expenditures during the period examined identified the Commission spent \$743.20 for engraved crystal keepsakes. Documentation supporting the expenses indicates that these engraved keepsakes are provided to the families traveling to the memorial to honor their family member who passed in the line of duty. This is in addition to prayer throws presented by the Commission at funerals to families of firefighters who have died in line of duty throughout the year.

Costs such as the ones associated with this annual trip, while a commendable activity, do not appear to relate in any way to recruitment, retention, incentive pay, education or training of highly qualified and experienced firefighters, which is in essence the intent established through KRS 95A.200.

### *Recommendations*

We recommend the Commission no longer use staff resources and KFFPF for the purpose of sponsoring this annual trip because the use of KFFPF by the Commission should be consistent with the intent of the KRS 95A.200. As such, we also recommend the Commission cease using KFFPF for the purpose of memorial keepsake items. We recommend the Fire Commission explore or establish other funding sources to pay for the memorial trip or work with existing nonprofit organizations to continue this activity.

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## Findings and Recommendations

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**Finding 6: Certain Commission Expenditures Did Not Appear To Be Necessary, Given The Restricted Nature Of KFFPF Funds**

Based on a sample of expenditures between July 1, 2014 and March 23, 2017, the Fire Commission used an additional \$6,873 in KFFPF monies for working lunches, an annual charitable campaign luncheon, a catered meal for a KCTCS event, a baseball promotional event, and keepsakes for families of fallen firefighters. Though the total cost associated with these 18 transactions does not appear to be a large amount of spending, such spending is wasteful when coupled with other findings of this report, and illustrates the need for greater accountability in the management of these funds.

KRS 95A.240 requires the Commission to administer the KFFPF consistent with the provisions of KRS 95A.200 to KRS 95A.300. As stated previously, KRS 95A.200 identifies the intent of the General Assembly, which in essence includes recruitment, retention, education, and training of highly qualified and experienced firefighters. It is unclear how spending for the purposes identified within this finding aids the Commission's efforts in achieve the goals of the General Assembly in establishing KFFPF.

A breakdown of the \$6,873 identified in testing is as follows:

- \$3,000 for a special event baseball sponsorship promoting emergency services;
- \$1,832.48 for chili ingredients for the purpose of providing chili for the KCTCS annual charitable campaign kickoff luncheon;
- \$1,162.80 for prayer throws provided to families of fallen firefighters at funerals, as discussed briefly in Finding 5 of this report;
- \$540 to cater a KCTCS annual area meeting for 45 attendees; and
- \$338.36 for working meals, including three meals purchased for interview panels conducting interviews and a meal purchased for Fire Commission staff performing a mass mailing.

In some instances the spending identified in testing not only appeared unnecessary but also more personal in nature, such as purchasing ingredients each year to make chili for a charity campaign luncheon, providing lunch to staff performing a mass mailing of information to firefighters and State Fire Rescue Training personnel, or meals to interview panels conducting numerous interviews over the period of a day. These types of expenditures appear to be more of a matter of convenience rather than necessity.

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## **Findings and Recommendations**

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### ***Recommendations***

We recommend Commission personnel more closely scrutinize spending of KFFPF monies to ensure expenditures are in compliance with the intent of KRS 95A.200 to KRS 95A.300. The Commission should prohibit spending that does not have a direct link to an official Commission program established through these statutes. As previously noted, other sources of funding without the restrictions imposed by KRS Chapter 95A may be explored or established to carry out these activities.

## **APPENDICES**



## Appendices

### Appendix A - Receipts and Sweeps To The General Fund by Fiscal Year Kentucky Firefighters Program Fund (KFFPF) and Kentucky Law Enforcement Foundation Program Fund (KLEFPF)

Fiscal Year	KFFPF		KLEFPF	
	Receipts	Sweeps	Receipts	Sweeps
2010	\$ 30,244,795	\$	\$ 45,484,879	\$
2011	37,468,295		53,707,337	506,500
2012	37,663,597		56,574,569	952,400
2013	40,207,614	7,350,000	58,787,545	17,041,100
2014	42,306,819	9,350,000	60,582,084	17,488,800
2015	42,276,007	18,000,000	64,762,011	10,530,000
2016	44,209,984	5,000,000	67,614,992	11,000,000
2017	45,905,100		69,595,502	
<b>Totals</b>	<b>\$ 320,282,211</b>	<b>\$ 39,700,000</b>	<b>\$ 477,108,919</b>	<b>\$ 57,518,800</b>

Source: KFFPF data provided by the Kentucky Fire Commission and KLEFPF data from eMARS (unaudited).

## Appendices

### Appendix B - Schedule of Receipts and Certain Expenditures Kentucky Fire Commission

Receipts	For the Year Ending June 30,	
	2015	2016
Surcharge	\$ 42,276,007	\$ 44,209,984
Interest Income	221,278	287,644
Other	27,155	34,615
<b>Total Receipts</b>	<b>\$ 42,524,440</b>	<b>\$ 44,532,243</b>
Selected Categories of Expenditures		
Firefighter Incentive	\$ 15,371,442	\$ 15,308,643
Volunteer State Aid	5,758,241	5,469,009
Salaries and Benefits	3,564,511	3,956,585
Volunteer Worker's Compensation	2,719,377	2,719,377
Fire Department Grants	496,336	1,269,643
Travel	317,300	340,562
Transfers		
Transfers Out General Fund	\$ 18,000,000	\$ 5,000,000

Source: Kentucky Fire Commission and Commonwealth of Kentucky Accounting System, eMARS (unaudited).

**KENTUCKY FIRE COMMISSION'S  
MANAGEMENT RESPONSE**





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State Auditor Mike Harmon  
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**Kentucky Fire Commission  
Response to Kentucky Auditor of Public Accounts'  
Findings and Recommendations  
April 30, 2018**

**Finding 1: The Surcharge Tax Rate On Insurance Premiums That Funds The Kentucky Fire Commission Was Not Set In Accordance With State Law**

**Recommendation:**

*We recommend the Fire Commission work with DOR to refine the analysis of the adequacy of the surcharge tax rate. The analysis used to justify surcharge tax rate changes should be documented and maintained. The General Assembly should evaluate whether a statutory change or clarification of the rate-setting process is needed.*

**Fire Commission Response:**

We agree with the recommendation. However, the Fire Commission does not set the rate, as the rate is set by legislative actions during the budgeting process.

**Finding 2: The Fire Commission Failed To Ensure Its Interest in Collateral For Low-Interest Loans Was Perfected**

**Recommendation:**

*We recommend the Fire Commission:*

- *Consult with its legal counsel regarding the option of filing UCC-1 statements itself rather than waiting on the borrower to perform the task.*
- *Also consult with its legal counsel to review its loan documents and administrative regulations to ensure its procedures for perfecting liens are consistent with the current law. The Fire*

*Commission should also review existing files to ensure liens are properly perfected by filing documentation with the correct office, depending on the type of collateral.*

- *Periodically review active loan files to ensure that financing statements or other perfection documents have been filed.*

**Fire Commission Response:**

We agree with the recommendation. We have consulted with counsel and are complying with the recommendation in addition to proactive reviews of active loans for timely filing of financial statements and documents. We have implemented a policy that has been approved by the Fire Commission Board to review each loan until proper documentation has been received. This policy was passed by the Fire Commission board February 23, 2018.

**Finding 3: The Fire Commission Approved The Award Of Low-Interest Loans In Excess Of Dollar And Term Limits Established By 739 KAR 2:070**

**Recommendations:**

*We recommend the Fire Commission abide by the rules in the administrative regulations regarding the maximum loan amounts and terms. If the Commission determines that revisions to loan limitations or restrictions are needed, we recommend Commission staff first conduct an internal analysis of its loan program to determine the potential impact of policy changes prior to making any recommendation to the Commission Board. An internal analysis should include a review of all statutes, administrative regulations, and industry standards impacting the program.*

**Fire Commission Response:**

We agree with the recommendation and comply with our administrative regulations. Safeguards have been enacted to ensure loan dollar thresholds are not exceeded.

**Finding 4: Kentucky Fire Commission Spending To Host Annual Firefighter Combat Challenge Exceeded \$150,000 And Does Not Appear To Be A Reasonable Or Necessary Expense**

**Recommendations:**

*We recommend the Fire Commission refrain from expensing KFFPF funds for the purpose of the combat challenge.*

**Fire Commission Response:**

We respectfully disagree with the recommendation. We feel that the Firefighter Combat Challenge does assure that fire protection in the Commonwealth is continually strengthened, upgraded and attractive to highly qualified men and women who choose firefighting as a profession; and retain qualified and experienced firefighters for the purpose of providing maximum protection and safety to the citizens of,

and visitors to, this Commonwealth per the intent of KRS 95A.200. We have attached several letters of support and recommendations from various doctors, cities, counties and fire departments we service. In addition, we have attached a comprehensive study performed by the University of Kentucky during Combat Challenge to predict the firefighters' performance based on the type of intensity of exercise training used to prepare for the competition and ultimately, the demands of the job. The Scott Firefighter Challenge is where firefighters are put through a gauntlet of physical firefighter tests.

**Finding 5: Over \$51,000 in KFFPF Funds Were Used For Commission Personnel, Local Honor Guards, And Firefighter Families To Attend The National Firefighter Memorial**

**Recommendations:**

*We recommend the Commission no longer use staff resources and KFFPF for the purpose of sponsoring this annual trip because the use of KFFPF by the Commission should be consistent with the intent of the KRS 95A.200. As such, we also recommend the Commission cease using KFFPF for the purpose of memorial keepsake items. We recommend the Fire Commission explore or establish other funding sources to pay for the memorial trip or work with existing nonprofit organizations to continue this activity.*

**Fire Commission Response:**

We respectfully disagree with the recommendation. Showing respect, admiration, reverence, recognition and loyalty to those firefighters who have given the ultimate sacrifice in the line of duty, and their families, is in line with retention of firefighting personnel and assists with recruitment via esprit de corps. Moreover, this symbolic and commendable gesture does in fact stand strong with the esprit de corps of firefighters for recruitment, retention, and recognition of the sacrifices made – which is the essence of the intent established through KRS 95A.200. Firefighting is a profession, no different than that of other professions and is based in much history, procedure, recognition and custom for those that serve and have served – even more so for those that have fallen.

**Finding 6: Certain Commission Expenditures Did Not Appear To Be Necessary, Given The Restricted Nature of KFFPF Funds**

**Recommendations:**

*We recommend Commission personnel more closely scrutinize spending of KFFPF monies to ensure expenditures are in compliance with the intent of KRS 95A.200 to KRS 95A.300. The Commission should prohibit spending that does not have a direct link to an official Commission program established through these statutes. As previously noted, other sources of funding without the restrictions imposed by KRS Chapter 95A may be explored or established to carry out these activities.*

**Fire Commission Response:**

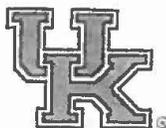
We agree with the recommendation of the expenses outlined. However, we deem these to have been made in the standards of normal and customary business procedure established by KCTCS and in compliance with the intent of KRS 95A.200 to KRS 95A.300.

We respectfully ask that these responses be included as a part of the examination and become public record.

 5-2-18

Ronnie Day  
Executive Director

Wendell Followell, VP  
KCTCS  
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University of Kentucky  
College of Education  
217 Seaton Building  
Lexington, KY 40506  
P: 859-257-4091

Redacted

October 10, 2017

Dear Wendell Followell:

This letter is written to describe the benefits that the Firefighter Combat Challenge provides the Kentucky fire service. I am a former firefighter and currently a professor and researcher in the Department of Kinesiology and Health Promotion at the University of Kentucky. In brief, my primary research focus is to enhance the safety, health, and occupational performance of firefighters.

The Firefighter Combat Challenge was created to promote physical fitness and health among firefighters. Promoting health and wellness within the fire service is important given that the leading cause of on-duty death is sudden cardiac death. Furthermore, in the state of Kentucky, our research has indicated that 90% of volunteer and 58% of career firefighters are classified as moderate-to-high risk for cardiovascular disease. The average firefighter in the state of Kentucky is classified as *obese*. Firefighters in our state are confronted with these serious health concerns and the Firefighter Combat Challenge is one mechanism to showcase the importance of maintaining health and fitness across the career-span.

To further demonstrate the importance of hosting this event locally, my laboratory will be collaborating with the Kentucky Fire Commission and Dr. Paul Davis (FFCC President) to conduct novel research to enhance the safety and occupational performance of Kentucky firefighters, and by extension, all U.S. firefighters. Specifically, we will be objectively measuring the physiological demands of Firefighter Combat Challenge tasks and collecting self-reported data on the training practices the firefighters utilize to prepare for this occupational competition. Collectively, these data will guide recommendations for best practices to enhance the safety and performance of Kentucky firefighters.

In brief, I would like to thank KCTCS and the Kentucky Fire Commission for sponsoring this inspiring event as it will provide a valuable research opportunity, promote fitness in the fire service, and showcase the state of Kentucky.

With kind regards,

Mark Abel, Ph.D., CSCS\*D, TSAC-F\*D  
Firefighter, 1995-1996 (West Bend, WI)  
Director, Exercise Physiology Laboratory  
Director, Undergraduate & Graduate Exercise Science Programs  
Associate Professor  
Department of Kinesiology and Health Promotion

see blue.

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## Grad Student's Research Focuses on Firefighter Fitness

[education.uky.edu/grad-students-research-focuses-on-firefighters-health/](http://education.uky.edu/grad-students-research-focuses-on-firefighters-health/)

Amanda Nelson

March 19, 2018

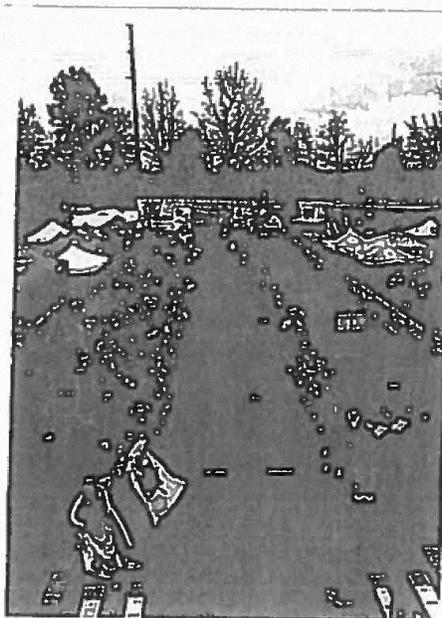
Doctoral student Anssi Saari wasn't sure how he, as a researcher, would be received, but he could not pass up the chance that came his way last semester. His faculty advisor at the University of Kentucky, Dr. Mark Abel, had connections that enabled Saari to conduct behind-the-scenes research during the Scott Firefighter World Challenge XXVI, where firefighters are put through a gauntlet of occupational physical tests.

The competition, which aired on ESPN 3, brought some of the world's most powerful firefighters to Jeffersontown, Ky. The competitors, hailing from places such as New Zealand, Germany, Chile, and the U.S and Canada, represent the top one percent in physical ability among firefighters.

Saari, who is working toward a doctorate in the Department of Kinesiology and Health Promotion in the UK College of Education, was there to collect physical data and administer questionnaires about how the competitors trained for the event. The researchers use the data to attempt to predict the firefighters' performance based on the type and intensity of exercise training used to prepare for the competition and ultimately, the demands of the job.

For the project, Saari was at the mercy of how much time the competitors were willing to spend providing him data.

"This competition provided a unique opportunity for conducting research on an important topic," Abel explained. "Anssi did a great job of developing rapport with the participants. He attended all six days of the competition, even after he completed data collection, to support the competitors and participants in the study."



Participants in the Scott Firefighter Combat Challenge were from places such as New Zealand, Germany, Chile and the U.S and Canada. They represent the top one percent in physical ability among firefighters.

Despite the intensity of the competition, a comradery developed among the firefighters. They knew what each other had gone through to reach an elite level. They also likely shared an unspoken knowledge of what they face in real-life situations, while on-duty at their jobs back home.

Saari was thankful to be welcomed into the professional fraternity.

"I got to have conversations with many of them and talk about what they think training should be like," Saari said. "I told them, if you have any ideas about training or future research, bounce them off me, because it's important for me to get feedback from people in the field. They are the ones who are going to actually be applying the scientific evidence we provide about their training. I want it to benefit the applicable populations, and that's something that motivates my work."

Saari was drawn to UK for his doctoral work because of Abel's interest in conducting research that benefits tactical populations – police officers, firefighters and military personnel. These groups face daunting physical obstacles while on the job, often coupled with intense mental stress. Abel's research centers on tactical personnel's physical performance, including how they train, their performance in high-intensity situations, and ways to prevent negative impacts on their physical health.

For firefighters, overcoming obstacles starts the minute they strap on their equipment. Breathing through a respirator decreases their aerobic capacity by about 15 percent. The equipment on their backs weighs 50 pounds. Their sleep schedules can be erratic, due to waking for emergencies in the night. On top of that, 80 percent of firefighters are overweight or obese.

"These factors make even mundane tasks so much more difficult," Abel said. "Imagine running a 5 kilometer race under these conditions. That's what fighting a fire can be like. The more fit the firefighters are, the higher their aerobic ceiling is going to be before the respirator reduces it. Being fit increases their tolerance to physical stress."

Prior to moving to the U.S. for college, Saari, who is from Finland, served for a year in the Finnish military, which is compulsory for all men in his home country. Abel has tactical training as well. Before his academic career, he spent time as a firefighter.

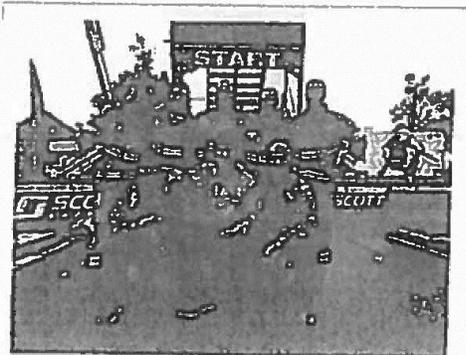
Ultimately, they want to provide information to service men and women that will not only make them safer, but also perform at their highest level.



Pictured are competitor Dirk Fuhrman, Dr. Mark Abel, Anssi Saari, Scott Firefighter Combat Challenge President Paul Davis, and competitor Ryan Fitzgerald

For this project, Saari took a team of graduate and undergraduate students with him to the competition in Jefferson town. They recorded physical data of participants, such as height, weight, body measurements and body composition readings.

Blood lactate levels rise during strenuous exercise, so they took those numbers from participants to evaluate the level of anaerobic exertion. The participants also wore heart rate monitors to further assess their level of exertion.



UK graduate student Anssi Saari with Scott Firefighter World Challenge competitors from Slovenia

Remarkably, battling blazes isn't necessarily the biggest health risk for firefighters. The greatest danger can come as the body recovers from the intense physical exertion, heat exposure, and psychological stress associated with battling a structure fire. It's not unusual to survive a brutal blaze, but have a heart attack back at the station. So, the researchers are looking at heart rate data that came in as the firefighters recovered from their intense exertion.

The research team's questionnaires asked about specific habits of the firefighters' training, including their training frequency and intensity, and what type of resistance and endurance training they performed, such as biking, running or rowing. Ultimately, the researchers will measure those factors against the firefighters' time in the competition.

"We are looking at the purposefulness of their training," Saari said. "We are asking questions such as how much thinking and planning goes into their training. Do they record their workouts? Does someone create a workout routine for them? Do they show up to the gym and just lift weights, or is there a preplanned method? We are asking these kinds of questions as a way of trying to see what type of training really relates to performance."

This type of research allows exercise scientists like Abel and Saari to discover if there is a connection between research findings relating to physical predictors of better performance and training habits in which elite level firefighters are engaging. They credit the competitors at the Scott Firefighter World Challenge and the competition's director, Dr. Paul Davis, for making this type of research possible for others in their profession.

"It was a really unique experience," Saari said of conducting the research during the competition. "When you think of research, this is not the typical picture in your head. It's a great opportunity, I think, for people who are usually in a lab or in a more controlled environment to witness something like this where it's more of a controlled chaos and you are at the mercy of what participants are willing to do for you and you are not their main focus for being there. The firefighters came to understand why I was there and I wanted to show respect

for why they were there as much as possible. Because it is a big deal to be given this opportunity that most likely, on my own, would never have happened."



The awards ceremony recognized the top male and female finishers in the Scott Firefighter World Challenge

**Roberts, Bruce W (KCTCS)**

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**From:** Paul Davis [Redacted]  
**Sent:** Tuesday, January 30, 2018 5:09 AM  
**To:** Roberts, Bruce W (KCTCS)  
**Subject:** A Retrospective Analysis of Performance on the Scott Firefighter Combat Challenge® (n≈20,000, 2007-2017)

We aggregated data from 2007 forward (≈20K firefighters) to build this dataset, and looked at average and top performers time (in seconds) on the Scott Firefighter Combat Challenge (five linked fire ground activities). [We have over 40,000 records going back to our inception in 1991]

The Firefighter Combat Challenge has been touted as the "Toughest Two Minutes in Sports" by ESPN, our broadcast partners. At the World Championships in Louisville this past October 2017, a sample of male firefighters participated in a blood lactate study, that confirmed the intense, anaerobic nature of this all-out sport. This study will be a doctoral dissertation and published in the not too distant future.

The results are not surprising, but nevertheless, striking.

The validity of the five fire suppression tasks has been repeatedly linked to actual on-the-job behavioral requirements through formal job task analyses. All competitors were wearing SCBA and their PPE (personal protective ensemble- a version of MOPP gear) with a total weight of ≈40 pounds. The climb of a five-story tower, with a 42lb (19Kg) shoulder load, that can be accomplished in as little as 12 seconds by the elite participant, is a calculated energy production is 1.5 HP. The final task, lifting and dragging backward a ≈80Kg (175lb) anatomically correct mannequin a distance of 106 feet is frequently accomplished in as little as 12 seconds.

Keep in mind, that virtually every firefighter could (or should) be capable of performing the Combat Test in about six minutes (the official cut-off time for the Scott Combat Challenge). What makes this a real Challenge is to see what insane time, under six minutes, you do.

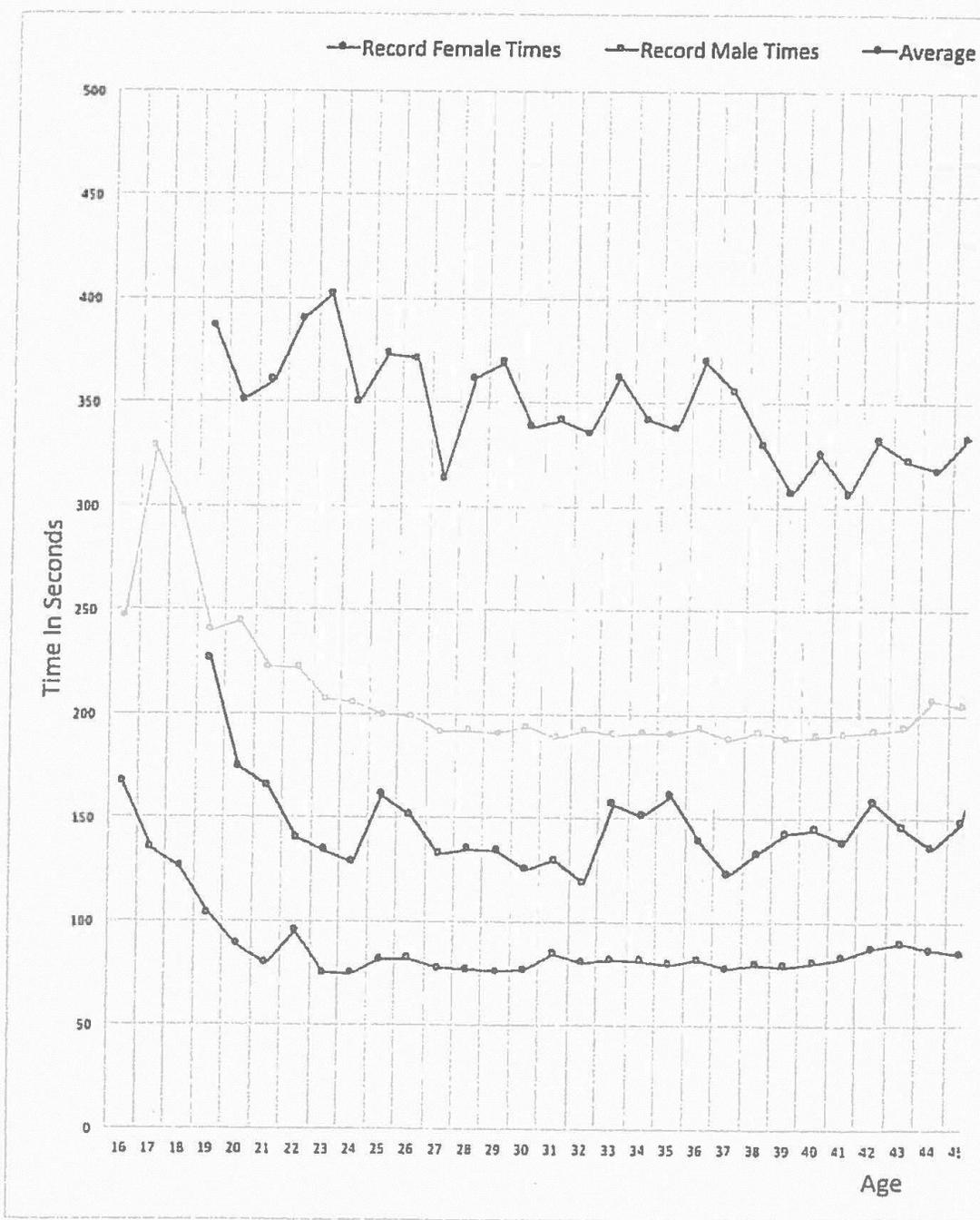
Each of the gender groups is large samples. These are self-selected participants, and to that end, are probably not representative of the North American fire service. (I.e., they are more likely to be in the 85th percentile and above.) There are some repeated measures in this cohort. But, with 942 female data points, and 18,021 males, it's a reasonable way to examine trends over a career. Female firefighters are a very small cohort of this universe (≈3.5%) and 5% of the firefighter population.

Some observations from these data: The top-performing women are consistently above the male average at any age. Their small numbers show a trend line that is more variable (as would be expected). The males continue to show amazing performance time at ages when most firefighters have retired (i.e, in their 50's and 60's). Of course, that fact that they're still competing is in and of itself, remarkable.

From a leadership perspective, this speaks loudly as to viability and sustainability of public safety employees, particularly firefighters, who see the value of a personal fitness program as a protection against the ravages of a physically demanding and dangerous occupation. (The one, radially up-sloping datapoint at the extreme right side is the retired 69-year-old Fire Chief of Carlsbad NM. (We do not recommend 70-year-olds to try this competition!)

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**If you're talking about leading from the front, there's no better platform by which to demonstrate that you can be fit across the entire spectrum of public safety employment - but it will not happen by accident.**



## **AUDITOR'S REPLY**



## **Auditor's Reply**

### Finding 4:

The finding is based on the nature of the exercise and the fact that a small minority of Kentucky firefighters participate. Letters of support are not evidence of compliance with the fund restrictions, and these letters have been omitted from the response.

The research referenced was not available to the Commission when deciding to conduct the challenges. Furthermore, no actual study or underlying data from this research was provided in the Commission's response. The correspondence and release that the Commission provided are attached.

### Finding 5:

As indicated in the finding, the event is worthwhile, but is not an appropriate use of public funds. The Commission should seek another source of funds for this event per the recommendation.